

ABSTRACT

A planing amphibious vehicle has at least one trim tab at its stern. A vehicle control system includes a mode change controller and a trim tab controller. The mode change controller informs the trim tab controller when a mode change event is taking place. The trim tab controller retracts the trim tabs if the mode change is from marine to land mode; and deploys the tabs if the change is from land mode to marine mode, to assist the vehicle in rising on to the plane. The controller may also retract the tabs if the vehicle reverses; and deploy the tabs if a change is made from reverse to forward motion. The vehicle control system may connect to actuators and sensors for retractable road wheels, which may use hydropneumatic struts. Safeguards against system faults and/or erroneous switch operation are included. Road wheel drive decouples are used; a marine drive decoupler may also be fitted.